

What is claimed is:

517 1. Apparatus for use in boot-up of an electronic device which includes a motherboard and a daughterboard comprising:  
first data storage device, accessible to said motherboard, storing daughterboard boot-up code;  
5 a coupler, coupling said daughterboard to said motherboard, defining at least a first data communication path from said motherboard to said daughterboard;  
a microprocessor positioned on said daughterboard, wherein said microprocessor includes a development port; and  
at least a second communication path, defined on said daughterboard, providing for  
10 communication from said coupler to said development port;  
wherein said boot-up code can be provided from said storage device, over said first communication path, said coupler and said second communication pathway, to said development port of said microprocessor on said daughterboard.

2. Apparatus, as claimed in Claim 1, wherein said motherboard is configured to download at least said boot-up code, to said development port automatically, in response to a power up or a reset of said electronic device.

3. Apparatus, as claimed in Claim 1, wherein said daughterboard includes a DRAM and a memory controller and wherein said boot-up code includes memory controller configuration information.

4. A method for performing boot-up in an electronic device including a motherboard and a coupled daughterboard, said daughterboard including a microprocessor having a development port, comprising:

5 automatically downloading at least first boot-up code from said motherboard to said development port, in response to a power-on or reset of said electronic device; and

using said boot-up code, in said microprocessor of said daughterboard, for performing at least a first boot-up operation.

5. A method, as claimed in Claim 4, wherein said boot-up operation includes configuring a port, different from said development port.

6. A method, as claimed in Claim 4, wherein said daughterboard includes a DRAM and a memory controller, and wherein said boot-up operation comprises configuring said memory controller.

7. A method, as claimed in Claim 4, further comprising downloading at least a portion of an operating system for said microprocessor, from said motherboard, using said development port.

8. A method, as claimed in Claim 4, wherein said step of downloading said at least first boot-up code is performed while said daughterboard is coupled to said motherboard.

9. A method, as claimed in Claim 4, wherein said step of downloading said at least first boot-up code is performed in the absence of coupling said development port to an external emulator.

10. A method, as claimed in Claim 4, wherein said first boot-up operation is performed in the absence of storing said boot-up code on a daughterboard non-volatile memory prior to said power-up or reset.

11. Apparatus for performing boot up in an electronic device including a motherboard and a coupled daughterboard, said daughterboard including a microprocessor having a development port, comprising:

means for automatically downloading at least first boot up code from said motherboard to  
5 said development port, in response to a power on or reset of said electronic device; and

means for performing at least a first boot-up operation, using said boot-up code, in said  
microprocessor of said daughterboard .

12. Apparatus, as claimed in Claim 11, wherein said means for performing said first  
boot-up operation includes means for configuring a port, different from said development port.

13. Apparatus, as claimed in claim 11, wherein said means for performing said first  
boot-up operation includes means for initializing DRAM chip selects.

14. Apparatus, as claimed in Claim 11, wherein said daughterboard includes a DRAM  
and a memory controller, and wherein said means for performing said first boot up operation  
comprises means for configuring said memory controller.

15. Apparatus, as claimed in Claim 11, further comprising means for downloading at  
least a portion of an operating system for said microprocessor, from said motherboard, using said  
development port.

16. Apparatus, as claimed in Claim 11, wherein said means for automatically  
downloading includes means for downloading while said daughterboard is coupled to said  
motherboard.

17. Apparatus, as claimed in Claim 11, wherein said means for downloading includes  
means for downloading in the absence of coupling said development port to an external  
emulator.

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A17 18. Apparatus, as claimed in Claim 11, wherein said means for performing said first  
boot-up operation includes means for performing said first boot-up operation in the absence of

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$$U_{\alpha} = U_0 + \frac{1}{2} \left( \frac{\partial U_0}{\partial x} \right)^2 + \frac{1}{6} \left( \frac{\partial^2 U_0}{\partial x^2} \right)^2 + \dots$$